

## CLAIMS

We claim:

1. A recombinant nucleic acid encoding a cell cycle protein comprising a nucleic acid that hybridizes under high stringency conditions to a sequence complementary to that set forth in  
5 Figure 1, 3, 5, 7, or 9.
2. The recombinant nucleic acid of claim 1 wherein said protein binds to an IAPs.
3. The recombinant nucleic acid of claim 1 comprising a nucleic acid sequence as set forth in Figure 1, 3, 5, 7, or 9.
4. A recombinant nucleic acid encoding a cell cycle protein comprising a nucleic acid having at  
10 least 85% sequence identity to a sequence as set forth in Figure 1, 3, 5, 7, or 9.
5. A recombinant nucleic acid encoding an amino acid sequence as shown in Figure 2, 4, 6, 8, or 10.
6. An expression vector comprising the recombinant nucleic acid according to any one of claims 1, 2, 3, 4, or 5, operably linked to regulatory sequences recognized by a host cell transformed with  
15 the nucleic acid.
7. A host cell comprising the recombinant nucleic acid according to any one of claims 1, 2, 3, 4, or 5.
8. A host cell comprising the vector of claim 6.
9. A process for producing a cell cycle protein comprising culturing the host cell of claim 7 or 8  
20 under conditions suitable for expression of a cell cycle protein.
10. A process according to claim 9 further comprising recovering said cell cycle protein.
11. A recombinant cell cycle protein encoded by the nucleic acid of any of claims 1, 2, 3, 4, or 5.
12. A recombinant polypeptide comprising an amino acid sequence having at least 80% sequence identity with the sequence set forth in Figure 2, 4, 6, 8, or 10.
- 25 13. The recombinant polypeptide of claim 12 wherein said polypeptide binds to an IAPs.

09715725 111600

14. The recombinant polypeptide of claim 12 wherein said sequence is set forth in Figure 2, 4, 6, 8, or 10.
15. An isolated polypeptide which specifically binds to a cell cycle protein according to claim 13.
16. A polypeptide according to claim 15 that is an antibody.
- 5 17. A polypeptide according to claim 16 wherein said antibody is a monoclonal antibody.
18. The monoclonal antibody of claim 17 wherein said antibody reduces or eliminates the biological function of said cell cycle protein.
19. A method for screening for a bioactive agent capable of binding to a cell cycle protein, said method comprising:
- 10 a) combining a cell cycle protein and a candidate bioactive agent; and  
b) determining the binding of said candidate bioactive agent to said cell cycle protein.
20. A method for screening for a bioactive agent capable of interfering with the binding of a cell cycle protein and IAPs, said method comprising:
- 15 a) combining a cell cycle protein, a candidate bioactive agent and an IAPs; and  
b) determining the binding of said cell cycle protein and said IAPs.
21. A method according to Claim 20, wherein said cell cycle protein and said IAPs are combined first.
22. A method for screening for a bioactive agent capable of modulating the activity of cell cycle protein, said method comprising:
- 20 a) adding a candidate bioactive agent to a cell comprising a recombinant nucleic acid encoding a cell cycle protein; and  
b) determining the effect of said candidate bioactive agent on said cell.
23. A method according to Claim 22, wherein a library of candidate bioactive agents is added to a plurality of cells comprising a recombinant nucleic acid encoding a cell cycle protein.
- 25 24. A method of modulating tumor growth comprising administering ING2 in an effective amount.
25. The method of claim 24 wherein p53 is also administered.

ADD  
A1